



## Bits and Hydraulics

### MODULE

#### About the Skill Module

This skill module addresses roller cone and fixed cutter bit design features and their associated hydraulics programs at an awareness competency level.

[See demo online learning module](#)

#### Target Audience

Technical staff, business professionals, technicians, analysts and other non-technical staff who are involved with but have limited experience with drilling operations.

#### You Will Learn

Participants will learn how to:

- Identify design features and selection criteria for roller cone bit types
- Explain failure modes for roller cone bits and how this information can be used to improve performance
- Identify design features and selection criteria for fixed cutter bit types
- Explain failure modes for fixed cutter bits and how this information can be used to improve performance
- Explain tool system options which allow wellbore enlargement to a diameter greater than the internal drift diameter of a previously installed casing string
- Discuss situations where this may be required
- Explain rotary coring bit options
- Explain the relationship between cost per foot of a bit run and the cost of a bit, its rate of penetration, footage drilled, and the cost of the drilling operation
- Determine optimum time to pull a used bit based upon its cost per foot trend
- Balance competing objectives for the drilling hydraulics system
- Maintain ECD below fracture pressure of open hole
- Select nozzle sizes for adequate bit hydraulics
- Maintain operating pressure and total pump power demands within rig capabilities

#### Product Details

Categories: [Upstream](#)

Disciplines: Well Construction/Drilling

Levels: Basic

Product Type: Individual Skill Module

Format: On-Demand

Duration: 3.5 hours (approx.)

**\$395.00**